Maj Waller/jm

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[redacted]

Vehicle 113

CLASSIFICATION CHANGED TO [redacted] BY AUTHORITY OF AFR 205-1 6 APR 1966

[redacted]

X

[redacted] AFB CALIF

AC PRODUCTS FIELD DIVISION LOS ANGELES CALIF

[redacted] /SATELLITE/ SUNNYVALE CALIF

LOCKHEED MISSILES & SPACE COMPANY SUNNYVALE CALIF

LOCKHEED MISSILES & SPACE COMPANY VANDENBERG AFB CALIF /COURIER/ [redacted]

[redacted] AIRCRAFT COMPANY VANDENBERG AFB CALIF /COURIER/ [redacted]

[redacted] STRATEGIC DIV VANDENBERG AFB CALIF /COURIER/ [redacted]

[redacted] PATRICK AFB FLORIDA

SECRET FROM VWZD 12 9 1964

SED FOR SEMI SEMIANN REPTS FOR COL MOORE SEMCLN LMSC/ SUNNYVALE FOR TWDA 2 /ML/, DEPUTY/ SEMCLN LMSC/VAFB FOR DEPT 62-60 SEMCLN DAC/VAFB FOR MR. BECKMAN. INFO CLN 1 STRAT AEROSPACE DIV FOR COMMAND POST AND DOOFA SEMCLN 12 4558TW FOR COL [redacted] 1 SUBJECT CLN FLASH REPORT ON THE SEP 61

DOWNGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS DOD DIR 5200.10

VWZD Official File Cy

OFFICE SYMBOL	[redacted]			Cy # 6 of 6 cys
NAME (SIGNATURE)	[redacted]			
DATE	[redacted]		LOCKE A. PERRY, JR., Colonel, USAF	

AFBMD Form 1
1 Nov 59

COORDINATION SHEET

Deputy for Space Systems

Replaces AFBMD Form 1, 1 Jun 59

[redacted]

[illegible] VANDENBERG AFB CALIF

LAUNCHING OF DISCOVERER 30 /NIGHT SHIFT PRESTO/.

1. DISCOVERER 30 CONSISTING OF THOR BOOSTER NO. 310 AND AGENA B ORBITAL STAGE NO. 1115 WAS LAUNCHED FROM VAFB [illegible] 75-3, PAD 5, AT 1259 GMT [illegible] ON 12 SEP 61. THE PRIMARY LAUNCH OBJECTIVE, TO PLACE THE DISCOVERER SATEL-LITE [illegible] IN A NEAR POLAR ORBIT, WAS ACCOMPLISHED. READINGS TAKEN FROM THE VTS RADAR PLOTTING BOARD GIVE AN INJECTION ALTITUDE OF 152 STATUTE MILES, AN INJECTION VELOCITY OF APPROXIMATELY 25,400 FPS, AND AN INJECTION FLIGHT PATH ANGLE OF ABOUT PLUS 1 DEGREE. TRACKING STATIONS AT KODIAK AND HAWAII HAVE CONFIRMED ORBITAL STATUS THROUGH RECEPTION OF TELEMETRY AND RADAR BEACON SIGNALS ON THE FIRST ORBIT PASS.

2. PRELIMINARY EVALUATION INDICATES THAT LAUNCH TEST OBJECTIVES WERE ACHIEVED AS FOLLOWS /REFERENCE DETAILED TEST OBJECTIVES, [illegible], SECTION 2/.

A. RECOVERABLE BOOSTER - OBJECTIVE ACHIEVED.

/1/ VEHICLE POSITION, FLIGHT PATH ANGLE, AND VELOCITY WERE WITHIN THE ESTABLISHED DEVIATION TOLERANCES AT BOOSTER CUTOFF. THESE TOLERANCES ARE 5 N.M. FOR POSITION, PLUS OR MINUS 4 DEGREES FOR FLIGHT PATH ANGLE,

[redacted]

[redacted]

AND SHAPE FOR VEHICLE. POWER STEERING AND EVENT

COMMANDS WERE INITIATED AND TRANSMITTED SATISFACTORILY

BY THE GUIDANCE SYSTEM, AND VEHICLE RESPONSE TO

THE COMMANDS APPEARS TO HAVE BEEN PROPER. MECO OCCURRED

AT T PLUS 147 SECONDS ON COMMAND FROM GROUND GUIDANCE.

VEHICLE ROLL OPERATION LASTED 9.0 SECONDS WITH

MECO OCCURRING AT T PLUS 36 SECONDS. AT T PLUS 162.30 SECONDS

GROUND GUIDANCE TRANSMITTED THE COMMAND WHICH INITIATED

SEPARATION OF THE ORBITAL STAGE FROM THE BOOSTER.

/M-3 OSCILLATIONS WERE APPARENT IN AGENA LONG-

ITUDINAL ACCELEROMETER DATA RETURNED PREVIOUS DISCOVER-

ED, HOWEVER, MAXIMUM PEAK-TO-PEAK AMPLITUDE OF THE

OSCILLATIONS WAS APPROXIMATELY 1.0 AT T PLUS 145 SECONDS.

B. AGENA AIRFRAME AND ADAPTER - OBJECTIVE ACHIEVED.

NO EVIDENCE OF STRUCTURAL PROBLEMS IN THE AGENA A

AIRFRAME OR ADAPTER HAS BEEN NOTED.

C. AGENA PROPULSION SYSTEM - OBJECTIVE ACHIEVED.

THE THRUST SCHEDULE FOR ORBITAL-STAGE SEPARATION

WAS ENTERED BY THE JETTO-SOCKETS. AGENA ENGINE IGNITION

OCCURRED AT T PLUS 214.97 SECONDS IN A NORMAL MANNER

AND THE ENGINE OPERATED SATISFACTORILY FOR 238.94 SECONDS.

[redacted]

THE ERROR SIGNAL WAS OBTAINED BY THE INTEGRATOR AT T PLUS 68.91 SECONDS WHEN THE INTEGRATOR DATA SHOWED A VERTICAL VELOCITY GAIN OF 14.98 FPS. THE RESULTS REVEALED BY THE DATA SHOWS THAT SUFFICIENT TO GIVE THE VEHICLE ORBITAL VELOCITY AT THE FLIGHT TRAJECTORY ALTITUDE.

B. ATLAS ELECTRICAL POWER SYSTEM - OBJECTIVE ACHIEVED.

THE PERFORMANCE OF ATLAS ELECTRICAL POWER SYSTEM DURING [redacted] WAS SATISFACTORY.

C. ATLAS GUIDANCE AND FLIGHT CONTROL SYSTEM - OBJECTIVE ACHIEVED.

THE ATLAS GUIDANCE SYSTEM PROPERLY RESPONDED TO THE 6.77 DEGREE TIME-TO-TILT CORRECTION AND THE 2.94 DEGREE VELOCITY-TO-BE-GAINED CORRECTION COMMANDED BY THE GUIDANCE SYSTEM. VEHICLE ATTITUDE APPEARS TO HAVE BEEN CONTROLLED SATISFACTORILY DURING THE COAST PHASE AND THE ORBITAL BOOST PHASE. AND CONTROL GAS EXPENDITURE WAS NORMAL DURING BOTH OF THESE PERIODS. SOME INTEGRATOR DRIFT IN THE DIRECTION TO INCREASE THE VELOCITY GAIN OCCURRED HAS BEEN NOTED BUT THE MAGNITUDE OF THIS DRIFT HAS NOT YET BEEN DETERMINED. ENGINE SHUTDOWN WAS COMMANDED BY THE INTEGRATOR AT A POINT

[redacted]

[redacted]

[illegible] TO [illegible] AND RADAR [redacted]

[illegible]. DURING THE TIME THAT TRANSFERRED DATA WAS RECEIVED, THE [illegible] ACCURATELY CONTROLLED THE TIME AND SEQUENCE OF PROGRAMMED EVENTS.

B. AGENA STAGE COMMUNICATIONS SYSTEM - OBJECTIVE ACHIEVED.

OPERATION OF THE ACQUISITION BEACON AND THE RADAR BEACON WAS SATISFACTORY. [illegible] TRACKED THE ACQUISITION BEACON FROM LIFTOFF TO T PLUS [illegible] SECONDS AND THE RADAR BEACON FROM LIFTOFF TO T PLUS [illegible] SECONDS.

C. AEROSPACE GROUND EQUIPMENT - OBJECTIVE ACHIEVED.

[illegible] AND GENERAL STAGE CHECKOUT WAS SATISFACTORILY ACCOMPLISHED DURING THE PRE LAUNCH COUNTDOWN BY THE AEROSPACE GROUND EQUIPMENT. MINOR PROBLEMS WERE ENCOUNTERED WITH THE AGENA AIR CONDITIONING [illegible] COUPLING, WITH A SMALL LEAK IN THE AGENA FUEL TRANSFER KIT, AND WITH THE AGENA GUIDANCE [illegible] LANGLEY TEMPERATURE INDICATOR. THESE PROBLEMS WERE SATISFACTORILY OVERCOME DURING THE COUNTDOWN.

E. DISCOVERER SYSTEM FACILITIES - OBJECTIVE ACHIEVED.

THE AGENA TELEMETRY SIGNAL WAS RECEIVED AND RECORDED [illegible] FROM LIFTOFF TO T PLUS [illegible] SECONDS AND

[illegible] [redacted] [redacted]

[redacted]

[illegible] ARE GOOD.

GOOD FLIGHT DATA ARE AVAILABLE FOR THE PERIOD FROM LIFT-OFF TO T PLUS [illegible] SECONDS. THE [illegible] VELOCITY [illegible] GOOD ANALOG AND DIGITAL DATA RECORDS FOR THE PERIOD FROM LIFTOFF TO LOSS OF TRACK. STATION COMMUNICATIONS DURING THE LAUNCH OPERATION WERE ADEQUATE.

3. THE LAUNCH COUNTDOWN.

ONE HOLD OF [illegible] MINUTES DURATION WAS REQUIRED AT T MINUS [illegible] AS NECESSARY TO [illegible] ONE OF THE ORBITAL STAGE COMPARTMENT DOORS. THE HOLD TIME WAS REGAINED DURING THE REMAINDER OF THE COUNTDOWN SO THAT LAUNCH OCCURRED AT THE NOMINAL TIME.

4. PAD DAMAGE

PAD DAMAGE WAS LIGHT AND A NORMAL RECOVERY SCHEDULE IS EXPECTED.

[illegible] 4.

[illegible] [redacted]